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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,722	07/21/2003	Sam Saeed Shariat	SS003	7555

7590 08/11/2005  
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EXAMINER

PIZIALI, ANDREW T

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 08/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/624,722

Applicant(s)

SHARIAT, SAM SAEED

Examiner

Andrew T. Piziali

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 6, 11 and 19-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-10 and 12-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 7/21/2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment filed on 6/28/2005 has been entered. The examiner has withdrawn the 35 USC 112 rejections of claims 7 and 12 based on the arguments presented. Applicant's amendment necessitated the new grounds of rejection presented in this Office action.

### ***Drawings***

2. The informal drawings are of sufficient quality to permit examination, but upon the indication of allowable subject matter replacement drawing sheets in compliance with 37 CFR 1.121(d) will be required. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures.

### ***Specification***

3. The amendment filed 6/28/2005 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material, which is not supported by the original disclosure, is as follows: The barrier layer may be a metal material. The original claims claimed that the barrier layer may comprise a metallic material, but the specification is silent regarding a barrier layer being a metal material or a metallic material.

Applicant is required to cancel the new matter in the reply to this Office Action.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Art Unit: 1771

5. Claims 1-5, 7-10 and 12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. The specification is silent regarding the presence of cured resin within and around the decorated layer.

Figure 2 is a flow chart of the steps contemplated by the process of the present invention, but Figure 2 does not illustrate application of a decorated layer prior to applying resin and curing the resin. Figure 2 simply illustrates the application of resin to the composite layers (stack), and the barrier layer, followed by curing of the resin. The specification, as a whole, discloses that the present invention provides an image-bearing sheet of material (decorated layer) to and atop a stack of composite materials [0020]. The specification discloses that a resin is applied to the stack of composite materials [0023] and that the resin may also be impregnated into the barrier layer along with the stack of composite materials [0043], but the specification is silent regarding the presence of cured resin within and around the decorated layer.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 13-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 1771

Regarding claims 13-18, it is not clear how the barrier layer surface can inhibit absorption of the resin when the applicant also claims that the cured resin is around and within all of the layers, including the barrier layer.

Regarding claims 14-18, it is not clear how the optically light pigment material of claim 14 can comprise *another* layer when it has not been established that the optically light pigment material comprises an initial layer. It is noted that claim 13 simply states that the barrier layer carries an optically light pigment material, the claim does not mention an optically light pigment material layer.

***Claim Rejections - 35 USC § 102/103***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-3, 5, 7-8, 10 and 12-13 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over USPN 6,004,900 to O'Brien, III (hereinafter referred to as O'Brien).

Regarding claims 1-3, 5, 7-8, 10 and 12-13, O'Brien discloses (see entire document

Art Unit: 1771

including column 1, lines 14-61, column 2, lines 28-40, column 7, lines 8-21, and column 8, lines 3-5) a decorative structural element comprising at least one layer of composite material and an outer layer comprising optically light pigment throughout the thickness of the outer layer.

O'Brien discloses that curable resin is within and around the at least one layer and the outer layer. O'Brien discloses that a decorative image, made by sublimation dye, is present beginning on the surface of the outer layer to a thickness less than the thickness of the outer layer.

Therefore, the outer layer comprises two distinct layers, a (outer) decorated layer visible to a viewer (comprising resin, optically light pigment, and a decorative image formed by sublimation dye), and a (inner) barrier layer (comprising resin and optically light pigment without the presence of sublimation dye).

Regarding claims 2 and 13, O'Brien discloses that the at least one layer may comprise optically dark material (column 1, lines 42-45).

Regarding claims 3, 5, 10 and 12, O'Brien discloses that the optically light pigment is provided throughout the barrier layer, including the side facing the composite material (column 2, lines 28-40).

Regarding claims 5, 7, 10 and 12, O'Brien discloses that the optically light pigment preferably comprises white titanium oxide (considered to read on a metallic material) pigment (column 4, lines 56-65 and column 6, lines 30-38).

Regarding claim 8, O'Brien discloses that the at least one layer comprises a stack of layers of composite material and curable resin within which the layers are disposed (column 1, lines 15-48).

***Claim Rejections - 35 USC § 103***

11. Claims 4, 9 and 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,004,900 to O'Brien as applied to claims 1-3, 5, 7-8, 10 and 12-13 above, and further in view of USPN 5,128,311 to Egashira et al. (hereinafter referred to as Egashira).

Regarding claims 4, 9 and 14-18, O'Brien discloses that the invention can receive sublimation print directly without an intermediate coating or other layer (column 2, lines 17-22), but O'Brien does not exclude the presence of an intermediate coating or other layer. Egashira discloses that it is known in the art to place a receiving layer, such as a woven polyester film, under an optically light pigment layer, to act as a receiving material particularly capable of being dyed with the sublimation dye (see entire document including column 1, lines 15-24, column 2, lines 29-56 and column 4, lines 21-30). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to place a woven polyester receiving layer under the optically light pigment layer, because the receiving layer is particularly capable of receiving the sublimation dye and thus forming the decorated layer on the outer surface of the structural element.

Regarding claim 9, O'Brien discloses that the stack of layers may comprise layers having different structural properties (column 1, lines 14-19).

Regarding claims 14-18, O'Brien discloses that the at least one layer of composite material may comprise reinforcing material such as glass fibers (column 1, lines 14-29) and O'Brien discloses that a decorative image, made by sublimation dye, is present beginning on the surface of the outer layer to a thickness less than the thickness of the outer layer. Therefore, the outer layer comprises two distinct layers, a (outer) decorated layer visible to a viewer

Art Unit: 1771

(comprising resin, optically light pigment, and a decorative image formed by sublimation dye), and a (inner) barrier layer (comprising resin and optically light pigment without the presence of sublimation dye).

Regarding claims 15 and 16, O'Brien discloses that the pigment material comprises a coating or a film (column 2, lines 28-40, column 7, lines 8-21, and column 8, lines 3-5).

### ***Response to Arguments***

12. Applicant's arguments filed 6/28/2005 have been fully considered but they are not persuasive.

The applicant asserts that O'Brien does not teach or suggest the claimed structure and/or cured resin within and around all of the layers because O'Brien teaches application of a decorative image after the composite article is formed and cured. The examiner respectfully disagrees. O'Brien discloses that the sublimation dye diffuses into the outermost resin surface (column 8, lines 3-5). In addition, O'Brien discloses that the outermost resin surface may be coated with a protective coating of paint, lacquer, or clear epoxy (column 8, lines 6-10). Therefore, O'Brien discloses the claimed structure wherein cured resin is within and around all of the layers.

### ***Conclusion***

13. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**



Art Unit: 1771

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Piziali whose telephone number is (571) 272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

atp

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